

### ABSTRACT

The present invention is generally directed to a system and method for monitoring and controlling a host of residential automation systems. The system is implemented by using a plurality of wireless communication devices configured to relay both data and command encoded signals through the wireless network of communication devices interposed between integrated sensors / actuators and a gateway device. In accordance with a preferred embodiment, the gateway translates the data encoded signals and embeds the information in a data packet using terminal control protocol / Internet protocol to communicate the data to a computing device on a wide area network. The computing device may comprise data collection and or control algorithms as desired. The computing device may forward command signals to the gateway device. In response thereto, the gateway may convert the command signals into appropriate command encoded signals for wireless transmission to a designated actuator integrated in a residential system. The present invention can also be viewed as providing a method for monitoring and controlling residential systems. In its broadest terms, the method can be described as: sensing a parameter; generating a wireless signal; traversing a wireless network to a gateway interconnected with a wide area network; communicating the parameter to a computing device on the network; generating a control signal; communicating the control signal to the gateway; converting the control signal; and broadcasting the control signal such that an appropriate actuator is energized.

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